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(71) Applicant: **Jade Bird Display (Shanghai) Limited**
Shanghai 201306 (CN)

(72) Inventors:

- **ZHU, Yuankun**
Shanghai, 201306 (CN)
- **FANG, Anle**
Shanghai, 201306 (CN)
- **LIU, Deshuai**
Shanghai, 201306 (CN)

(74) Representative: **Finnegan Europe LLP**
1 London Bridge
London SE1 9BG (GB)

(54) MICRO LED, MICRO LED ARRAY PANEL AND MANUFACTURING METHOD THEREOF

(57) A micro LED includes a first type semiconductor layer; and a light emitting layer formed on the first type semiconductor layer; a first type cap layer formed at a bottom surface of the light emitting layer and between the first type semiconductor layer and the light emitting layer; wherein the first type semiconductor layer includes a mesa structure, a trench, and a ion implantation fence

separated from the mesa structure, the trench extending up through the first type semiconductor layer and extending up into at least part of the first type cap layer; and the ion implantation fence is formed around the trench and the trench is formed around the mesa structure; wherein an electrical resistance of the ion implantation fence is higher than an electrical resistance of the mesa structure.

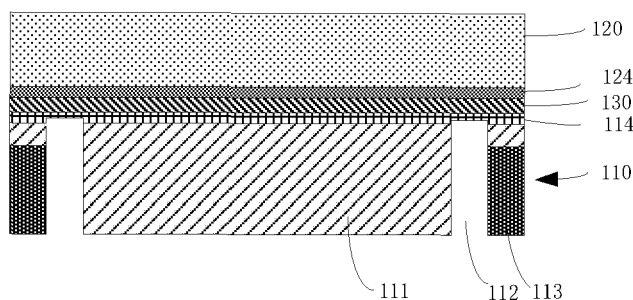


FIG. 1A



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Place of search The Hague		Date of completion of the search 8 May 2025	Examiner van der Linden, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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